



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/287,664	04/07/1999	DAVID A. RUSSO	01222.0034-0	6563

7590

08/18/2003

THE LAW OFFICES OF ROBERT J. EICHELBURG
HOADFEL BUILDING, SUITE200
196 ACTON ROAD
ANNAPOLIS,, MD 21403

EXAMINER

BRUNSMAN, DAVID M

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 26

Application Number: 09/287,664
Filing Date: April 07, 1999
Appellant(s): RUSSO ET AL.

Robert J. Eichelburg
For Appellant

MAILED
~~405~~ 1 8 2003
GROUP 1700

EXAMINER'S ANSWER

This is in response to the appeal brief filed 30 December 2002.

Art Unit: 1755

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is deficient because the invention of the claims on appeal comprises a process for *forming* an oxide composition, but is otherwise substantially correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The appellant's statement in the brief that certain claims do not stand or fall together is not agreed with because the brief fails to point out specific reasons why the claims are believed to be separately patentable with respect to the rejection under section 251. Appellants' argument appears to be a statement that each claim could be separately patentable at some future point.

Art Unit: 1755

Appellant does not argue that claims 28-32 would be separately patentable with respect to the section 103 rejection.

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

5028566	Lagendijk	July 1991
---------	-----------	-----------

4308316	Gordon	Dec. 1981
---------	--------	-----------

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claims 28-32 stand finally rejected under 35 U.S.C. 103. This rejection is set forth in prior Office Action, Paper No. 18.

Claims 28-32 stand finally rejected under 35 U.S.C. 251. This rejection is set forth in prior Office Action, Paper No. 18.

(11) *Response to Argument*

The Rejection Under 35 U.S.C. §103(a)

Claims 28-32 stand finally rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent 5028566 in view of US Patent 4308316.

The references relied upon are representative of a large body of art disclosing CVD source solutions comprising metal oxide precursors and accelerants.

Example 4 of 5028566 teaches CVD using a source solution comprising TMCTS (a silicon oxide precursor), trimethylphosphite and an oxygen source. The difference between example 4 and the instant claims is the inclusion of a precursor of a metal oxide other than

Art Unit: 1755

silicon oxide. While usage of the term “metal” is inconsistent at best in the CVD art (see US 4308316), the examiner agrees that as interpreted in light of the instant specification, the term “metal” in the instant claims excludes silicon as asserted by applicant. Claims 4-14 of 4308316 teach formation of CVD precursors including the combination of silicon oxide precursors and additional metal oxide precursors including those of indium, aluminum and zinc in order to obtain particular properties in the film deposited. It would have been obvious to one of ordinary skill in the art to combine at least one of said additional metal oxide precursors with that of silicon oxide in order to obtain those particular properties in the deposited film. 4308316 thus provided motivation for one of ordinary skill in the art to combine silicon oxide precursors and metal oxide precursors. This *prima facie* case of obviousness could have been overcome by a showing of unexpected results. The particular showing of improved or unexpected results in the application is limited to the invention requiring the particular source composition recited in claims 1-27, commensurate with the patented claims. Claims 1-27 have been indicated as allowable.

Claims 28-30, only, require an accelerant based on either an organic phosphite, organic borate or water. Contrary to applicant's assertion, 4308316, as a whole, does not teach away from using the accelerants of the instant claims. Example 2 of 4308316 teaches premature hydrolysis for aluminum pentanedionate is to be avoided. It does not address CVD processes in general and such an interpretation is expressly refuted by Table E, which explicitly includes H₂O as a useful oxygen source (accelerant).

The compounds of Table D of 4308316 establish that one of ordinary skill in the art would expect accelerants (including O₂, N₂O exemplified by 4308316) that are effective for

Art Unit: 1755

silicon oxide precursors to be effective with other metal oxide precursors and combinations thereof.

Applicants' argument that every candidate for evaluation in the art would require separate testing before drawing conclusions is rebutted by the broad scope of materials disclosed and claimed in each of the prior art references of record. Further, the argument suggests that the instant specification, which does not include testing and evaluation of each species implicitly or explicitly claimed, is insufficient to support claims having the breadth of scope of instant claims 28-32. As such, the starting materials of instant claims 28-32 are not unobvious and do not lend patentability to the claims.

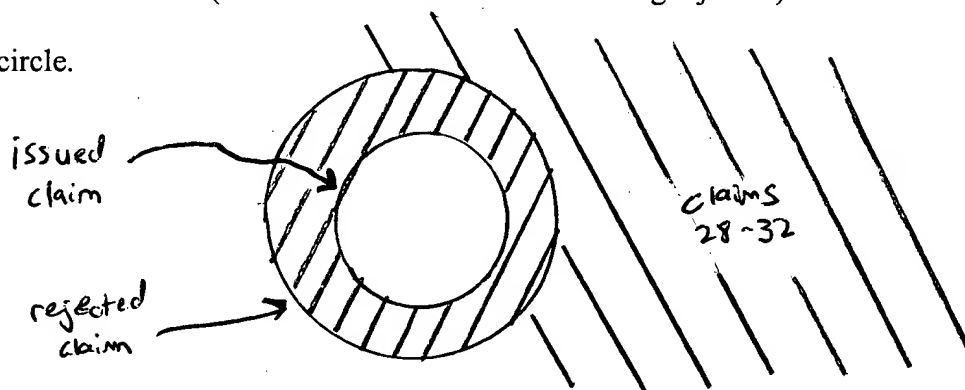
The Rejection Under 35 U.S.C. §251

Claims 28-32 stand finally rejected under 35 U.S.C. §251 as being improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Hester Industries, Inc. v. Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d 1161 (Fed. Cir. 1997); *Ball Corp. v. United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984). A broadening aspect is present in the reissue, which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application. Page 8, line 12 of appellants' brief admits the instant claims 28-32 are broadened.

Art Unit: 1755

Determining the scope of the reissue claims.

Ball Corp. v. United States, 221 USPQ 289, sets forth “[t]he recapture rule bars the patentee from acquiring through reissue, claims that are of the same or of broadier scope than those claims that were canceled from the original application.” In the instant case the scope of the rejected original claim may be represented by the outer circle in the diagram below, the scope of the issued claim may be represented by the inner circle. The scope of the representative instant claim 31 (the broadest of the claims standing rejected) falls in the region outside the outer circle.



As set forth in *Ex Parte Daniel M. Eggert and Frank Mikic (deceased)* Appeal No. 2001-0790, Decided: May 29, 2003,

For example, if an outer circle claim contains elements ABC... a reissue applicant cannot recapture a claim directed to elements ABC (outer circle) or a claim entirely outside the outer circle (e.g., AB, BC, ABC_{BR}, etc.).

(where the subscript BR designates a broader element)

Under the test set forth in *In re Clement* 45 USPQ2d 1161, “[t]he first step in applying the recapture rule is to determine whether and in what ‘aspect’ the reissue claims are broader than the patent claims.” The reissue claims rejected are admitted to be broader than the patent claims and no evidence of record has been identified that they are in any aspect narrower. “The

Art Unit: 1755

second step is to determine whether the broader aspects of the reissue claim relate to surrendered subject matter.” All subject matter outside the original rejected claim, that outside the outer circle in the diagram, relate to surrendered subject matter. The original claims were deliberately amended to in an effort to overcome the rejection thereof in the manner suggested by the examiner in that the limitations of claim 11 were added to independent claim 1. “If the scope of the reissue claim is the same as or broader than that of the canceled (amended [alternative added]) claim, then the patentee is clearly attempting to recapture surrendered subject matter and the reissue claim is, therefore, unallowable. Even if the reissue claim is broader in some aspects, but narrower [than the surrendered subject matter] in others, then: ...if the reissue claim is as broad as broader in an aspect germane to a prior art rejection, but narrower in another aspect completely unrelated to the rejection, the recapture rule bars the claim.” The reissue claims under rejection are broader in the aspect germane to the rejection at least in that they do not require the limitations of claim 11 the aspect upon which allowability was predicated.

Applicant's response in the original application.

The limitation of the deposition rate in the original application was presented as making the invention allowable as an improvement not available in the prior art. (“The invention is made by CVD rates greater than about 350 angstroms/second”). Compositional limitations were added in response to examiner’s rejection of the claims as not enabled for the required deposition rates. Examiner’s Notice of Allowability specifically stated, “The prior art of record fails to teach or suggest a gaseous composition comprising the recited tin oxide precursor, silicon oxide precursor and accelerant selected from borates, phosphites and water”. The claims were amended to be limited to those specific materials in response to the rejection. The specification

Art Unit: 1755

of the patented application declared that compositions not limited to the recited precursors (as patented) would not be suitable because they would fail to provide the required deposition rate.

Intent to claim.

The specification of the reissue patent sets forth the scope of the invention. Page 4, lines 50-51 and page 4, line 54 through page 5, line 3 recite: "The invention is made by CVD at rates greater than about 350Å/sec." And, "using a mixture which includes... metal oxide precursor... further includes silicon oxide precursor and one or more additives selected from the group consisting of phosphates, borates, water, alkyl phosphines, arsine and borate derivatives, PH₃, AsH₃ and B₂H₆ and O₂, N₂O, NF₃, NO₂ and CO₂." In the original application, claims limited to specific composition producing the required deposition rate are analogous to MPEP 1412.01(B). A specific intent not to claim subject matter not exhibiting the deposition rate is demonstrated. As exemplified in the MPEP,

The original patent specification would indicate an intent not to claim the subject matter of the claims presented in the reissue application in a situation analogous to the following: The original patent specification discloses that composition X is not suitable (or not satisfactory) for molding an item because composition X fails to provide quick drying. After the patent issues, it is found that composition X would be desirable for the molding in spite of the failure to provide quick drying, because of some other newly recognized benefit from composition X. A claim to composition X, *or a method of use thereof* [emphasis added] would not be permitted in a reissue application, because the original patent specification

Art Unit: 1755

contained an explicit statement of intent not to claim composition X or a method of use thereof.”

The examiner has explicitly set forth where and when appellant has surrendered the broadened subject matter in the final rejection and above in the “Clement” analysis.

Surrender based on response to a rejection under §112(1).

That the originally rejected claims were amended in response to a rejection under 35 U.S.C. §112(1) rather than §103 does not prevent a finding of recapture. In *In re Wadlinger, Kerr and Rosinski*, 181 USPQ 826 the CCPA eviscerated its finding in *In re Wesseler*, 151 USPQ 339, relied upon by appellant, holding that the term “error” was broadened in §251. This finding of a broadened interpretation appears critical to the case. Further, the finding therein of no impermissible recapture appears to be predicated on the inability of the court to distinguish whether the amendments made to secure patentability were due to the rejection under §112(2) or the prior art such that the court could not determine which material had been actually surrendered.

While much of the precedential opinion uses the phrase “in response to prior art rejection”, as it is the most common situation litigated, in its simplest terms the rule may be summarized (see *Eggert*, page 19, lines 1-4) as follows: “A patentee is precluded from recapturing in reissue that which he earlier conceded was unpatentable and abandoned or surrendered, whether by cancellation, amendment or argument of claims, for purposes of obtaining the original patent.” See, *Ball Corp. v. United States*, 221 USPQ 289, 294. The decision not to appeal is an irrevocable admission of unpatentability. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 56 USPQ2d 1865.

Art Unit: 1755

Hester Indus. Inc. v. Stein Inc., 46 USPQ2d 1641 established that surrender could occur through arguments alone. Each of the precedents establishing the recapture doctrine relies upon the same line of reasoning. Reissue does not give the patentee the right to prosecute *de novo* his original application. *In re Weiler*, 229 USPQ 673. The recapture rule prevents a patentee from regaining rejected subject matter. See also, *In re Wilder*, 229 USPQ 369, *In re Clement*, 45 USPQ2d 1161, *Mentor Corp. v. Coloplast, Inc.*, 27 USPQ2d 1521, *Haliczer v. United States*, 148 USPQ 565.

There is no specific point in the reasoning that would limit the recapture doctrine to surrender made only in response to prior art rejections. Consistency of reasoning requires that the Supreme Court finding of *Festo* as to surrender be applied to reissue. *Festo*, itself, recognizes that the principles of prosecution history estoppel apply to reissue patents as does *Hester* at 1649. The alternative would engender the incongruous result that patent protection could be obtained under reissue, but not enforced in infringement proceedings.

The *Mentor* case relied upon by the court in *Clement* makes the general statement “[T]he reissue claims are broader than the original patent claims in a manner directly pertinent to the subject matter surrendered.”

Clement stands for the proposition that reissue applicants cannot recapture subject matter given up in response to an office action. *Festo* applies estoppel to response to any requirement of the Patent Act.

Surrender of subject matter in process claims.

The instant claims 28-32, rejected under §251, are directed to simply the process comprising the single step, – oxidizing – a metal oxide precursor without any process limitation.

Art Unit: 1755

Claims are to be considered as a whole. Where the patent claims explicitly recite a *metal oxide* precursor composition, the simple step of oxidizing that *precursor* to obtain a *metal oxide* is envisioned simply by reading the patent claim. The weight of opinion clearly prohibits reissue claims broader than the scope of the rejected claims in the original application. See paragraph 8 of the Preface of *Eggert*.

No precedential support or reasoning has been presented to apply to the doctrine of recapture in a reissue proceeding, a finding regarding whether a composition and process subject to a double patenting rejection could be drawn to the same invention. Were the instant claims not drawn to the “same invention” as the original patent claims, they would not be proper under §251 as set forth at MPEP 1412.01.

The deposition rate.

The original patent included an intent not to claim the subject matter presented in claims 28-32 in that the original patent specification discloses that the composition fails to provide the desired deposition rate, a situation analogous to that set forth in MPEP 1412.01(B), as explained above. This interpretation of the intent to claim was established by the original prosecution and applicant is estopped from changing it by the prosecution history thereof.

Applicant's limitation of the silicon oxide precursor in the original application.

Applicant's amendment further limiting “only” one of four components recited in the base claim originally filed does not give them license to obtain claims broader than the scope of the rejected claims (surrendered subject matter). In the original prosecution, September 20, 1994 Office Action, the examiner had no reason to explicitly state that the limitations of the base claim, as filed, were necessary to overcome the rejection as he indicated that he would allow

Art Unit: 1755

claims wherein all the limitations of claim 11 were included in the base claim. Clearly, the requirement of inclusion into the base claim carries with it all the limitations of said base claim.

No response to the Statement of Reasons for Allowance:

[t]he prior art of record fails to teach or suggest a gaseous composition comprising the recited tin oxide precursor, silicon oxide precursor and accelerant selected from borates, phosphites and water.

was filed even though it was explicitly invited in the following paragraph.

Filing of additional claims in the original application.

It is unclear how applicant's submission of new additional claims of narrower scope, demonstrates that the limitations of the original base claim were not necessary for allowance. That the examiner has indicated reissue claims containing all the limitations recited in the Reasons for Allowance as allowable simply functions to further support the examiner's position. No recapture is alleged with respect to claims 1-27. Claims 28-32 do not further limit the tin oxide precursor, organic phosphites or organic borates.

Process v. Composition claims.

The relationship between composition claims and the process claims of the reissue application is fully treated above; such that no support is found for applying *Studiengesellschaft Kohle mbH v. Northern Petrochemical Company*, 228 USPQ 837 to recapture analysis in a reissue proceeding.

The intended invention in the prosecution history.

As set forth above, the prosecution history of the original application estopps applicant from asserting that the specification intended to claim or even included inventions not depositing

Art Unit: 1755

at at least 350 Å/sec. Nor, does the doctrine of recapture allow applicants to obtain claims wholly outside the scope of the rejected claims.

The Claims Stand or Fall Together

Under the subtitle: *Grouping of Claims* , the examiner has fully addressed whether claims 28-32 stand or fall together, absent more than a statement that they could be separately patentable.

The Offer to Dedicate Claims to the Public

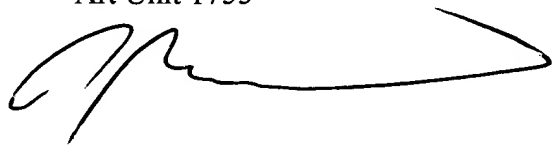
There is no cited provision in Patent Law to resolve this controversy by dedication of the claims to the public at this point in the prosecution.

Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

David M Brunsman
Primary Examiner
Art Unit 1755



DMB
June 14, 2003

Conferees

Mark Bell 
William Krynski 

FINNEGAN, HENDERSON, FARABOW, GARRETT
AND DUNNER
1300 I STREET N.W.
WASHINGTON, DC 20005-3315